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ABSTRACT

The topic of procrastination (putting off for tomorrow what one should do today) is introduced as a well-known phenomenon that has been the subject of widespread general interest, modest professional activity, and remarkably little research interest. In this paper, explicit criteria are formulated to define the phenomenon. The various etiological and treatment perspectives (psychodynamic, behaviorist, and cognitive) are described. Distinctions are made between internal versus external locus of avoidant responses and between positive versus negative task valence. Internal locus of avoidant responses refers to intrapersonal characteristics that activate avoidant responses with regard to tasks or decisions, while external locus of avoidant responses refers to task or decision characteristics that elicit these avoidant responses. Positive task valence is defined as an effort to succeed, to complete a task or reach a decision satisfactorily, and negative task valence is defined as an effort to court failure. Procrastination is discussed in relation to broad concepts in the field of stress and coping. The paper concludes that procrastination is more than a curious human aberration; it represents a dysfunction of important human abilities to establish priorities and the ability to perform these tasks in a conflict-free, efficient manner. (Author/ABL)

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The Many Faces of Procrastination:

Implications and Recommendations for Counselors

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Abstract

Procrastination has been dealt with piecemeal in the clinical literature both conceptually and therapeutically. In this paper, explicit criteria were formulated to define the phenomenon. The various etiological and treatment perspectives (psychodynamic, behaviorist, and cognitive) were described. Distinctions were made between (1) internal vs. external locus of avoidant responses and (2) positive vs. negative task valence. Internal locus of avoidant responses refers to intrapersonal characteristics that activate avoidant responses with regard to tasks or decisions; whereas external refers to task or decision characteristics that elicit these avoidant responses. Positive task valence is defined as an effort to succeed, to complete a task or reach a decision satisfactorily; and negative as an effort to court failure. Procrastination was discussed in relation to broad concepts in the field of stress and coping.

The Many Faces of Procrastination:

Implications and Recommendations for Counseling

Procrastination--putting off for tomorrow what one should do today--is a well-known phenomenon that has been the subject of widespread general interest, modest professional activity, and remarkably little research interest. Clinical research and practice have emphasized two areas, academic procrastination and so-called generalized, neurotic procrastination. The former refers to delays by students in completing home, library, and laboratory assignments on time, and in preparing for examinations (Hill, Hill, Chabot, & Barrall, 1978). The latter refers to a lifelong pattern of delays and postponements of major life decisions, and of last minute completion of one's duties or commitments in the major areas of adult behavior: Work, marriage, parenting, social relations, and recreational pursuits (Ellis & Knaus, 1975).

The dichotomy in life area has also been associated with a treatment dichotomy. The conventional wisdom has been to treat academic procrastination symptomatically, that is, to use behavioral techniques to replace poor study habits with good ones (Ely & Hampton, 1973); and to treat nonacademic, neurotic procrastination dynamically, to enhance the client's insight into his or her underlying motivations and induce behavior change through change in personality or cognitive structure (Ellis, 1962; Schuman, 1981).

These dichotomies are problematic for many reasons: (1) Procrastination in academic work may be as severely neurotic

as procrastination in other areas of life; (2) The distinction between academic and non-academic procrastination is one of convenience and is no more substantive than distinctions within the latter between work and family areas of living; (3) Academic and non-academic procrastination co-exist in many people; (4) Treating one set of procrastinatory behaviors by a behaviorist approach and another set by a psychodynamic approach is based on the professional venue and specialization of the therapist rather than on formal conceptual distinctions between these phenomena.

There are other serious problems--the failure to define procrastination concisely, and the absence of a comprehensive theory about the phenomenon, its etiology, and its prevention and/or treatment. The purpose of this paper is to evaluate critically trends in the field and to propose a more integrated conceptualization.

The Many Faces of Procrastination

Initial interest in the topic focused on poor work habits leading to academic deficiencies. Estimates of the extent of academic procrastination in students range from 10-40% depending on the operational definition of the term, the particular academic task, and relevant student characteristics (Ely & Hampton, 1973; Hill et al., 1978; Rosati, 1975). Teachers frequently complain that many of their students fail to submit assignments on time. The problem may be even more extensive, however, than teachers are aware of, once we go beyond their superficial definition of procrastination.

Procrastination refers not only to a student failing to

pass in homework or term papers on time (time-frame procrastination), but also to a capable student submitting a poorly prepared assignment on time. The latter instance constitutes procrastination if the student repeatedly postponed scheduling when to do the task and failed to adhere to her schedule (procrastination in scheduling and schedule adherence). A student, or any person on any task, may have difficulty in deciding when to do it. One may think about it and plan to start doing it the next day, and failing to do so, again plan to do it several days later, and so on. Or one may refuse to think about it at all, make no plans, until suddenly at the last minute one recalls that the task is due and begins to work at it in desperation with foreseeable results--a poor performance with adverse consequences for the performer.

Proposed Criteria for Task-Oriented Procrastination

When we consider the objective behaviors that constitute procrastination, and identify the implicit assumptions underlying these behaviors, we find that task-oriented procrastination may be defined in terms of the following formal criteria:

(1) Acknowledgment by the individual of the legitimate claim on one's time and energy of a given task. Procrastination applies only to tasks we are required to do by others or by our own personal standards. If a person wholly rejects the legitimacy of the claims of the task on one's time and effort, then one is not procrastinating, but is doing something else--marching to the tune of a different drummer, perhaps. The counselor may explore with such a person the short and

longterm implications of deviant choices and behaviors, but is not dealing with procrastination.

(2) Experienced behavioral inefficiency or difficulty in scheduling when to do the task and in adhering to schedule, as described above.

(3) Level of task performance below one's reasonable standards, expectations, or aspirations and attributed to inefficient use of the time available for completing the task, not to one's lack of ability. If task performance level were up to par, the behavioral inefficiencies described above might well be regarded as inconsequential, there would be be far less emotional distress if any, and there would be no incentive for behavior change.

(4) Experienced emotional upset or distress associated with any of the behavioral inefficiencies reported in (2), and/or with an assessment after the fact of one's task-performing behavior or its consequences. Emotional upset is a necessary condition both of the diagnosis of procrastination and of good prognosis in treatment. Any definition is tailored to the goals of the producers and consumers of the definition. In the present instance, the goals are prevention, alleviation, and treatment of a class of adverse behaviors that interfere with optimal functioning. To achieve these goals, we need to identify procrastinators motivated to seek and accept help. People who perform in an inefficient manner in meeting their acknowledged commitments and suffer adverse consequences associated with their inefficient behavior without becoming upset are poor candidates for therapeutic intervention.

Should they present themselves for evaluation and treatment, we would find that their personal problems are beyond the scope of the present discussion.

Implications and Amplifications of Criteria

The phenomenological character of procrastination. Procrastination must be defined in part by subjective self report. As stated in an earlier report, "Procrastination is in the mind of the performer and not in the eye of the beholder" (Milgram, Srolof, & Rosenbaum, in press). One could attempt to define the phenomenon objectively, in terms of task completion at some point in a time frame whose poles are (1) prompt performance and (2) performance at the very last minute, or later if at all. This approach would miss the mark, however, when applied to a person who consistently schedules doing tasks somewhat later in the time frame, but not necessarily at the last minute, and then adheres to this schedule. If the style of scheduling and schedule adherence is conflict-free and without any adverse consequences for the individual, then doing things intentionally late in the time frame is not an instance of procrastination.

Performance below par. There is a partial exception to this rule. One's task performance may be up to par as judged by the finished product, but the ongoing behavior from task initiation to completion may be regarded by one as unsatisfactory and upsetting. A person asking for counseling on these inefficiencies falls within our definition.

Taking an opposite tack, conflict-free scheduling and

schedule adherence as well as task performance may be adequate by any reasonable standard, but one may have unrealistically high standards for these behaviors. The resulting emotional distress would be a basis for one's seeking and receiving counseling, but not as an instance of procrastination.

Procrastination in Decision-Making

A comprehensive definition of procrastination is not restricted to behavioral inefficiencies in completing tasks one acknowledges one should perform. It also includes behavioral inefficiencies in deciding whether to perform certain tasks to begin with. Many people are plagued by indecision. This form of procrastination is defined by the same three terms, broadly interpreted, that were applied above to task procrastination: Substandard performance attributed to time-oriented behavioral inefficiencies and associated with emotional distress. Implications and clarifications follow.

Substandard performance in decision-making. Procrastination in decision-making leads to substandard performance in a number of ways. Delays in making decisions are costly--whether in material or psychological terms. By delaying, we may be unable to take advantage of a particular option (e.g., somebody else bought the house that we wanted; by the time she married, she was too old to have children of her own); or we may exercise the option later and lose out on the benefits we might have enjoyed sooner (paying rent for years when one could have enjoyed the benefits of home ownership all of those years). Second, a lengthy, drawnout decision-making process reduces the amount of time and energy available for investment

in other pursuits. Third, excessive hesitations and delays exercise an adverse effect on one's selfconcept as well as on the way one is perceived by others. An indecisive person thinks less well of himself or herself and is regarded as less adequate by family, friends, and fellow workers.

Distress about indecisiveness and its consequences. Emotional distress about procrastination in decision-making is easily as severe as in task completion, because of conflicts associated with indecisive behavior. These may be avoidance-avoidance conflicts (having to choose between two unacceptable alternatives), approach-approach conflicts (having to choose between two acceptable alternatives), or complex combinations of both of the above.

Procrastination about major vs minor decisions. Procrastination in decision-making is not restricted solely to indecisiveness about issues of importance--when and whom to marry, where to live and work, what kind of work to do, whether and when to change one's place of employment, and so on. It also includes indecisiveness about the myriad of minor, trivial matters that arise daily. Some people agonize about whether to wear a blue tie or a red tie, or to do something on Monday versus Tuesday. Pervasive indecisiveness about trivia may reflect a severe character disorder and require a form of treatment differing markedly from that offered people who procrastinate about major life decisions. Nevertheless, if members of the former group regard their indecisive behavior as a source of distress and wish to change it, they should be

included in procrastination treatment programs.

The Major Etiological and Treatment Perspectives

The three major perspectives on etiology and treatment of procrastination are psychodynamic, behaviorist, and cognitive behavior modification. Each is presented briefly below. In this presentation and in the remainder of this paper, procrastination is described primarily in terms of task performance, but it should be clear to the reader that the discussion is applicable to procrastination in decision-making as well.

The psychodynamic perspective emphasizes largely unconscious psychic events--wishes and fears--and/or traumatic childhood experiences as responsible for the selfdefeating behaviors that characterize procrastination (Schuman, 1981). Treatment consists of three stages: (1) The client becomes aware of these unconscious wishes, fears, and experiences; (2) The client modifies these psychic events by integrating them into an increasingly positive selfconcept; and (3) The client dispenses with the maladaptive procrastinatory behaviors that the unconscious psychic events originally sustained.

According to the behaviorist perspective (Mowrer, 1947), a procrastination pattern is found when an aversive situation establishes an unpleasant response to a neutral stimulus associated in time and place with the original aversive stimulus; thereafter, one continues to behave as if the original aversive episode were about to recur, and avoids performing actions associated with it. Procrastination patterns are also established on the basis of their anxiety-reducing properties. Avoidant responses are less anxietyarousing than

confrontation with feared events and are thereby reinforced (Wolpe, 1958). Treatment consists of (1) analyzing situational cues and contingencies that maintain maladaptive habits; (2) introducing new cues and incentives to reinforce adaptive habits; and (3) utilizing relaxation training and systematic, gradual exposure to anxiety-arousing situations (Lazarus, 1971).

Cognitive behavior modification emphasizes cognitive activities--images, ideas, expectancies, and self-initiated verbalizations--in acquiring, sustaining, and eliminating procrastinatory behavior. Treatment consists of identifying self-defeating, self-initiated messages, replacing them with more appropriate messages, and applying the latter in new situations (Meichenbaum, 1977).

These perspectives differ in terminology, underlying assumptions, and formal techniques. Many of the differences are more apparent than real, and the perspectives have many features in common. In my clinical experience, the range of personal problems associated with procrastination is best understood and treated by a flexible use of all perspectives. This view is emphasized in the presentation that follows on major personality factors found in procrastinators.

Personality Factors in Procrastination

Three personality characteristics have been identified by psychotherapists in clients with procrastination: Fear of failure (Beery, 1975), task aversiveness and low frustration tolerance (Milgram, Srolof, & Rosenbaum, in press), and passive-aggressive orientation (Burka & Yuen, 1883).

Fear of Failure

An exaggerated fear of failure may follow from early childhood experiences in which unfortunate consequences followed the child's tentative efforts to perform certain kinds of tasks or make certain kinds of choices (as postulated by psychodynamic and behaviorist perspectives). Whatever the initial etiology, the individual approaches a given situation with self-defeating expectancies about imminent failure. He or she converts these expectancies into implicit messages transmitted to oneself at various stages in scheduling, initiating and performing a task or making a decision (cognitive perspective).

It is reasonable to assume that the more fearful one is about the possibility of failure in performing a given task or of adverse consequences in making a wrong decision, the more likely one will be to resort to delaying techniques to put off the day of reckoning (Beery, 1975; Milgram, Srolof, & Rosenbaum, in press). As in other self-defeating behaviors, we gain in the short run by putting unpleasant events out of mind some or much of the time, but lose in the long run by suffering a failure experience and its consequences.

A question arises: Why not do the task promptly to the best of our ability, accept the consequences of possible failure, and get it over with? "A coward dies a thousand deaths, a brave man, but once." Failure is, after all, not inevitable and we may learn from our mistakes and improve our competencies for the next encounter. The rejoinder is that prompt, planned effort is a mature behavior and occurs in emotionally secure individuals with a positive, resilient self

concept.

Emotionally insecure people, by contrast, are loath to adopt this strategy because perceived failure under these circumstances is intolerable. When they do their best and their best isn't good enough, they may conclude that they are hopelessly incompetent not only in the task at hand, but also in other important life tasks. For people susceptible to this chain of negative attributions, procrastination is a useful strategyuseful because it conceals the "truth" of their incompetence from them and from others. They may now attribute their failure to their bad work habits, external circumstances that prevented them from investing the necessary effort, or whatever excuse they offer for their procrastination. Notwithstanding the personal upset associated with procrastination and its consequences, failure attributed to poor work habits or circumstances is more tolerable than failure attributed to personal inadequacies.

Task Aversiveness and Low Frustration Tolerance

We acquire a wide variety of emotional responses to different tasks in life, ranging from positive anticipation at the thought of doing some tasks to extreme distaste at the thought of having to do others. Differences in task aversiveness are acquired in the course of our recent or remote past experience by classical and operant conditioning (behaviorist), displacements and rationalizations (psychodynamic), or counterproductive expectancies (cognitive and rational-emotive). These dysphoric reactions are not necessarily related to fear

of failure, as we may be highly competent on tasks we dislike doing.

Whatever their origin, the aversive character of some tasks affect our sense of priorities, interfering with the efficient completion of many things we need to do. People typically perform in a prompt manner the many routine tasks of daily living they regard as pleasant, and avoid doing the unpleasant ones, or do them reluctantly at the last possible moment (Milgram, Srolof, & Rosenbaum, in press). Given this line of reasoning, we would argue that procrastinators differ from others in the number and kind of these aversive tasks. They may differ, however, in level of frustration tolerance rather than in number and kind of aversive tasks. Two people may be similar with regard to the latter, but the one with a high tolerance level for the frustration experienced in doing aversive tasks, completes them promptly; while the other with a low tolerance level, procrastinates. Either or both factors may be present in a given individual and dealt with in the course of treatment.

Passive-Aggressive Personality Orientation

Some procrastinators adopt a paradoxical attitude toward their behavioral inefficiencies or deficiencies. They appear to regard them as virtues. Their behavior is best understood by reference to the passive-aggressive personality disorder as defined in the DSM-III-R (American Psychiatric Association, 1987). People with this personality disorder passively resist demands for adequate performance in occupational and social functioning by engaging in dawdling, intentional inefficiency,

and "forgetfulness." They persist in these patterns even under circumstances in which self-assertive and effective behavior are possible and desirable. This self-defeating behavior follows from their effort to assert autonomy in the face of resented authority by engaging in passive-aggressive maneuvers, including procrastination.

People may also procrastinate on the countless routine, trivial tasks they are called upon to perform in everyday life for the same reasons. If they regard these tasks as conventions imposed upon them by coercive authority figures (parents, teachers, other adults, or peers) and have not learned to accept or to comply with them graciously, they will stall, postpone, and delay endlessly. They pay, however, a high psychic price. Lazarus and his colleagues (DeLongis et al., 1982; Kanner, Coyne, Schaefer, & Lazarus, 1982) found that the cumulative daily upset experienced by people in doing the routines of daily living (the hassle index) has a more adverse effect on one's physical and mental health than the relatively infrequent, major stressful events. Recent research (Milgram & Arad, 1987) has shown that people who procrastinate on the many, minor routines of daily living also report a high hassle index.

Procrastination in the Service of Motivated Under-Achievement

According to Burka and Yuen (1983), some people fear they cannot function as independent, competent people and settle for less demanding, less rewarding roles in life by falling back on procrastination. These people are afraid of success

and its consequences and guarantee failure by procrastinating on the job. Fear of success may also stem from any of the following: (1) Fear of losing the affection of others who become envious of one's success; (2) Fear of the strain of escalating competition and continuing commitment; and (3) One's personal conviction that one is unworthy of success even if one can achieve it. Some competent women, for example, are more afraid of success than failure because it jeopardizes their relationship with a potential or actual husband.

The Structure of Procrastination

An effort was made to integrate the various aspects of procrastination in a single coherent framework. A 3 X 3 model is presented in Figure 1 with locus of avoidant response on the vertical axis and task valence on the horizontal.

	Task Valence		
Locus of Avoidance	Positive	Positive/ Negative	Negative
Internal	1	2	3
Internal/External	4	5	6
External	7	8	9

Figure 1

The Structure of Procrastination

Locus of avoidance refers to the primary source of avoidant

responses, whether within the person (internal), the task or decision (external), or both (internal/external). Task valence refers to positive vs. negative evaluation of end state--completing the task or reaching a decision. If one wishes to succeed, i.e., complete the task or reach a decision in a satisfactory manner, the valence is positive; if one wishes to fail because of anticipated adverse consequences attributed to success, the valence is negative; if an approach-avoidance conflict applies, positive/negative. To complete the picture, if task valence is neutral, neither positive nor negative, the task does not have demand character, and substandard task performance would not be regarded as procrastination. Similarly, if on the vertical axis, no source of avoidance behavior is identified because there is no avoidant response tendency, procrastination does not occur.

The 3 X 3 model yields nine cells, each describing a different procrastination problem. Cell 1 represents fear of failure, cell 3 the fear of success, and cells 7-9 instances of task aversiveness, all of which were described earlier. Several original hypotheses may be derived by examining the nine cells. First, if we assume that positive/negative is more conflictual and stressful than positive or negative alone, we would predict that cell 2 will entail a more severe degree of procrastination than cells 1 and 3, the same for 5 vs. 4 and 6, and 8 vs. 7 and 9. Second, if we assume an internal/external locus of avoidant response produces a more powerful avoidant response than internal or external alone, we would hypothesize that cell 4 will yield a more severe degree of procrastination

than cells 1 and 7, the same for 5 vs 2 and 8, and 6 vs 3 and 9. When we combine these hypotheses, we assign the most severe procrastination to cell 5, relatively high levels to 2, 4, 6 and 8, and low levels to 1, 3, 7 and 9.

The model also suggests a given treatment perspective may be more effective with some cells than with others. External attribution may be better treated by a behaviorist perspective, and internal by a psychodynamic or cognitive one. Similarly, negative valence, a more subtle, complex attribution than positive, may be better treated by a psychodynamic or cognitive perspective. These issues will be examined empirically in future research.

Procrastination as a Maladaptive Stress Reaction

Procrastination in all of its manifestations represents a maladaptive way to cope with life stressors. Lazarus and Folkman (1984) describe two kinds of effective coping that are antithetical to procrastination: Problem-solving and emotion-focused. The first refers to identifying and resolving features of a stressful problem, emphasizing the distinction between means and ends, and directing our energies toward achieving the latter by efficient planning and performance strategies. Emotion-focused coping refers to techniques used to overcome one's personal emotional resistance against doing certain tasks and raising one's tolerance level in confronting and completing tasks or making decisions.

The Virtues of Planning, Priorities, and Prompt Performance

The virtues of planning and priorities are selfevident, but

is promptness a virtue? What is selfdefeating in doing things well, but at the last minute? If the criterion is efficient scheduling and adhering to one´s schedule, then why not schedule some tasks and decisions toward the end of the time frame? First, because it doesn´t work that way. Research has shown that most people who complete things at the last minute do so because of persistent postponing earlier in the time frame, not because of a deliberate decision to schedule the task late in the time frame (Milgram, Srolof, & Rosenbaum, in press). Moreover, doing things at the last minute is not a relaxed or wise way to operate. For most people, it is simply the end of a stressful process of false starts and stops that serve as a chronic strain on one´s mental alertness and a threat to one´s self esteem and feeling of self efficacy.

Procrastination is more than a curious human aberration, one of the many instances in which people fail to pursue their correctly perceived interests in an efficient, productive way. It represents a dysfunction of important human abilities: (1) The ability to establish priorities with respect to the myriad tasks, major or minor, that accumulate daily on our desks and in our memo books; and (2) The ability to perform these tasks in a conflict-free, efficient manner. These abilities are important personal assets in coping with minor as well as major tasks, trivial as well as important decisions, and minor as well as major stressors in daily life. Consequently, it is important to understand and treat this dysfunction in ourr clients, our colleagues, and ourselves.

References

American Psychiatric Association (1987). Diagnostic and Statistical Manual of Mental Disorders (3rd Edition-Revised). Washington, D.C.: Author.

Beery, R.G. (1975). Fear of failure in the student experience. Personnel and Guidance Journal, 54, 190-203.

Burka, J.B., & Yuen,, L.M. (1983). Procrastination: Why you do it, what to do about it. Reading, Massachusetts: Addison-Wesley.

DeLongis, A., Coyne, J.C., Dakof, G., Folkman, S., & Lazarus, R.S. (1982). Relationship of daily hassles, uplifts and major life events to health status. Health Psychology, 1, 119-136.

Ellis, A. (1962). Reason and emotion in psychotherapy. Secaucus, New Jersey: Lyle Stuart.

Ellis, A., & Knaus, W.J. (1975).Overcoming procrastination. New York: Rational Living.

Ely, D., & Hampton, J. (1973). Prediction of procrastination in a self-pacing instructional system. ERIC Documentation Service, No. Ed 075501.

Hill, M.B., Hill, D.A., Chabot, A.E., & Barrall, J.F. (1978). A survey of college faculty and student procrastination. College Student Journal, 12, 256-262.

Kanner, A.D., Coyne, J.C., Schafer, C., & Lazarus, R.S. (1981). Comparison of two modes of stress management: Daily hassles and uplifts versus major life events. Journal of Behavioral Medicine, 4, 1-39.

Knaus, W.J. (1979). Do it now: How to stop procrastinating.

Englewood Cliffs, New Jersey: Prentice-Hall.

Lazarus, A.A. (1971). Behavior therapy and beyond. New York: McGraw-Hill.

Lazarus, R.S., & Folkman, S. (1984). Stress, appraisal, and coping. New York: Springer.

Meichenbaum, D. H. (1977). Cognitive behavior modification: An integrative approach. New York: Plenum Press.

Milgram, N.A., & Arad, R. (1987). Longitudinal study of stress in middle-aged couples. Preliminary technical report submitted to National Council of Research and Development, Jerusalem.

Milgram, N.A., Srolof, B., & Rosenbaum, M. (in press). Procrastination in everyday life. Journal of Research in Personality.

Mowrer, O.H. (1947). On the dual nature of learning: A reinterpretation of "conditioning" and "problem solving." Harvard Educational Review, 17, 102-148.

Rosati, P.A. (1975). Procrastinators prefer PSI. Educational Research and Methods, 8, 17-19, 22.

Schuman, E.P. (1981). A writing block treated with modern psychoanalytic interventions. Journal of Psychoanalysis, 68, 113-134.

Wolpe, J. (1958). Psychotherapy by reciprocal inhibition. Stanford: Stanford University Press.

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